```
     (FILE 'HOME' ENTERED AT 21:32:25 ON 01 MAR 2007)

     FILE 'REGISTRY' ENTERED AT 21:32:42 ON 01 MAR 2007
L1             0 S CA-PL-PO4
L2             0 S CA ACIDIC PHOSPHOLIPID
L3             1 S ACIDIC PHOSPHOLIPID
L4             0 S PHOSPHOLIPID AND PO4

     FILE 'CAPLUS' ENTERED AT 21:41:14 ON 01 MAR 2007
L5             7 S CA-PL-PO4
L6             0 S L5 AND COLLAGEN
L7          1121 S COLLAGEN AND PHOSPHOLIPID
L8           238 S L7 AND CALCIUM
L9           103 S L8 AND (PO4 OR PHOSPHATE)
L10           48 S L9 AND (COMPLEX OR COMPOSIT)
L11           48 FOCUS L10 1-
                 E COLLAGEN+ALL/CT
                 E COLLAGEN+ALL/CT
L12        61604 S E2
                 E PHOSPHATE+ALL/CT
                 E PHOSPHATE+ALL/CT
L13       130106 S E4, E5, E3, E2
L14       130106 S L1 OR L13
                 E CALCIUM+ALL/CT
L15        88811 S E9, E4, E10, E1-E3
L16         3428 S L14 AND L15
L17           35 S L12 AND L13 AND L15
L18       166073 S PHOSPHOLIPID? OR PHOSPHATIDYLSERINE OR PHOSPHATIDYLINOSITOL O
L19       166085 S L18 OR PHOSPHLIPID
L20            4 S L17 AND L19

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     (FILE 'HOME' ENTERED AT 21:32:25 ON 01 MAR 2007)

     FILE 'REGISTRY' ENTERED AT 21:32:42 ON 01 MAR 2007
L1             0 S CA-PL-PO4
L2             0 S CA ACIDIC PHOSPHOLIPID
L3             1 S ACIDIC PHOSPHOLIPID
L4             0 S PHOSPHOLIPID AND PO4

     FILE 'CAPLUS' ENTERED AT 21:41:14 ON 01 MAR 2007
L5             7 S CA-PL-PO4
L6             0 S L5 AND COLLAGEN
L7          1121 S COLLAGEN AND PHOSPHOLIPID
L8           238 S L7 AND CALCIUM
L9           103 S L8 AND (PO4 OR PHOSPHATE)
L10           48 S L9 AND (COMPLEX OR COMPOSIT)
L11           48 FOCUS L10 1-

=> e collagen+all/ct
E1        5398   -->  Collagen/CT
                      HNTE Valid heading during volumes 1-75 (1907-1971) only.
E2       61604      NEW  Collagens/CT
********** END **********

=> s e2
L12      61604 COLLAGENS/CT

=> e phosphate+all/ct
E1         325   BT3  Main group element compounds/CT
E2        2236     BT2  Group VA element compounds/CT
E3       36879     BT2  Salts/CT
E4       52254       BT1  Phosphates/CT
E5           1         -->  Phosphate/CT
E6                       UF   Orthophosphate/CT
E7                       RTCS Volutin/CT
********** END **********

=> s e4, e5, e3, e2
         52254 PHOSPHATES/CT
         40572 PHOSPHATE/CT  (1 TERM)
         36879 SALTS/CT
          2236 "GROUP VA ELEMENT COMPOUNDS"/CT
L13     130106 (PHOSPHATES/CT OR  PHOSPHATE/CT OR  SALTS/CT OR  "GROUP VA ELEME
               NT COMPOUNDS"/CT)

=> s l1 or l13
             0 L1
L14     130106 L1 OR L13

=> e calcium+all/ct
E1       17004     BT3  Elements/CT
E2         200       BT2  Main group elements/CT
E3       17004     BT3  Elements/CT
E4       17722   BT4  Materials/CT
E5      214957     BT3  Metals/CT
E6           0       BT2  Metallic elements (non-CA heading)/CT
E7       10687         BT1  Alkaline earth metals/CT
E8           0     BT3  Nutrition (non-CA heading)/CT
E9       16588       BT2  Nutrients/CT
E10      39586         BT1  Mineral elements/CT
E11          0           -->  Calcium/CT
E12                        UF   Atomic calcium/CT
E13                        UF   Calcium atom/CT
E14                        UF   Calcium element/CT
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E15        1752             RT   Acid rain/CT
E16         730             RT   Antiosteoporotic agents/CT
E17        5343             RT   Atmospheric precipitation/CT
E18        4690             RT   Calcification/CT
E19       16267             RT   Calcium channel/CT
E20        2498             RT   Calculi, renal/CT
E21        2438             RT   Calculi, urinary/CT
E22         734             RT   Catchment/CT
E23        3888             RT   Exocytosis/CT
E24        2626             RT   Forest litter/CT
E25        1489             RT   Glaciers/CT
E26        2290             RT   Hydroponics/CT
E27        2784             RT   Hyperparathyroidism/CT
E28        1386             RT   Inotropics/CT
E29        7270             RT   Muscle contraction/CT
E30        2412             RT   Neutron activation analysis/CT
E31       11691             RT   Nutrition, plant/CT
E32        3640             RT   Parathyroid gland/CT
E33         804             RT   Picea abies/CT
E34        3728             RT   Rickets/CT
E35        4274             RT   Second messenger system/CT
E36         736             RT   Soil acidification/CT
E37        4995             RT   Soil liming/CT
E38        2971             RT   Tachyphylaxis/CT
********** END **********

=> s e9, e4, e10, e1-e3
         16588 NUTRIENTS/CT
         17722 MATERIALS/CT
         39586 "MINERAL ELEMENTS"/CT
         17004 ELEMENTS/CT
           200 "MAIN GROUP ELEMENTS"/CT
         17004 ELEMENTS/CT
L15      88811 (NUTRIENTS/CT OR  MATERIALS/CT OR  "MINERAL ELEMENTS"/CT OR
               ELEMENTS/CT OR "MAIN GROUP ELEMENTS"/CT OR ELEMENTS/CT)

=> s l14 and l15
L16       3428 L14 AND L15

=> s l12 and l13 and l15
L17         35 L12 AND L13 AND L15

=> s phospholipid? or phosphatidylserine or phosphatidylinositol or
phosphatidylglycerol or diphosphatidylglycerol or phosphatidylethanolamine
        125816 PHOSPHOLIPID?
         12776 PHOSPHATIDYLSERINE
         15404 PHOSPHATIDYLSERINES
         19877 PHOSPHATIDYLSERINE
                 (PHOSPHATIDYLSERINE OR PHOSPHATIDYLSERINES)
         34358 PHOSPHATIDYLINOSITOL
         15479 PHOSPHATIDYLINOSITOLS
         41310 PHOSPHATIDYLINOSITOL
                 (PHOSPHATIDYLINOSITOL OR PHOSPHATIDYLINOSITOLS)
          5298 PHOSPHATIDYLGLYCEROL
          6802 PHOSPHATIDYLGLYCEROLS
          8617 PHOSPHATIDYLGLYCEROL
                 (PHOSPHATIDYLGLYCEROL OR PHOSPHATIDYLGLYCEROLS)
           853 DIPHOSPHATIDYLGLYCEROL
            57 DIPHOSPHATIDYLGLYCEROLS
           896 DIPHOSPHATIDYLGLYCEROL
                 (DIPHOSPHATIDYLGLYCEROL OR DIPHOSPHATIDYLGLYCEROLS)
         17043 PHOSPHATIDYLETHANOLAMINE
         21159 PHOSPHATIDYLETHANOLAMINES
         26796 PHOSPHATIDYLETHANOLAMINE
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                (PHOSPHATIDYLETHANOLAMINE OR PHOSPHATIDYLETHANOLAMINES)
L18      166073 PHOSPHOLIPID? OR PHOSPHATIDYLSERINE OR PHOSPHATIDYLINOSITOL OR
                PHOSPHATIDYLGLYCEROL OR DIPHOSPHATIDYLGLYCEROL OR PHOSPHATIDYLET
               HANOLAMINE

=> s l18 or phosphlipid
             82 PHOSPHLIPID
             52 PHOSPHLIPIDS
            133 PHOSPHLIPID
                (PHOSPHLIPID OR PHOSPHLIPIDS)
L19      166085 L18 OR PHOSPHLIPID

=> s l17 and l19
L20           4 L17 AND L19

=> d ibib abs 1-4
```

L11 ANSWER 30 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1987:193508 CAPLUS
DOCUMENT NUMBER: 106:193508
TITLE: In vivo hydroxyapatite formation induced by lipids
AUTHOR(S): Raggio, C. L.; Boyan, B. D.; Boskey, Adele L.
CORPORATE SOURCE: Hosp. Spec. Surg., Cornell Univ., New York, NY, 10021, USA
SOURCE: Journal of Bone and Mineral Research (1986), 1(5), 409-15
CODEN: JBMREJ; ISSN: 0884-0431
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Proteolipids and complexed acidic phospholipids that cause in vitro hydroxyapatite formation, similarly cause hydroxyapatite deposition in 10-μ pore Millipore chambers when implanted in rabbit muscle pouches. The amount of mineral deposited during a 3-wk period, based on the Ca and phosphate contents of the chambers, was directly related to the dry weight of the lipid implanted in the chamber. Chambers containing total lipid extract from rabbit bone from which the complexed acidic phospholipids had been removed, acidic phospholipids from which the the proteolipids had been removed, and empty chambers did not accumulate any detectable mineral during the course of the study. Chambers implanted with synthetic hydroxyapatite served as controls for chemical analyses. The presence of hydroxyapatite in the chambers was established 3 wk after implantation, based on electron microscopic, compositional, and wide-angle x-ray diffraction analyses of the deposits. In the cell-free chambers, lipid-induced hydroxyapatite deposition, but not bone matrix formation occurred. Thus, proteolipids and complexed acidic phospholipids can cause hydroxyapatite mineral deposition in a physiol. environment. To date, these lipids are the only materials isolated from mineralizing tissues, other than reconstituted collagen, that have been shown capable of causing in vivo mineralization in the absence of cells.

L11 ANSWER 5 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1984:528385 CAPLUS
DOCUMENT NUMBER: 101:128385
TITLE: Cartilage calcification: normal and aberrant
AUTHOR(S): Boskey, Adele L.; Bullough, P. G.
CORPORATE SOURCE: Hosp. Spec. Surg., Cornell Univ., New York, NY, 10021, USA
SOURCE: Scanning Electron Microscopy (1984), (2), 943-52
CODEN: SEMYBL; ISSN: 0586-5581
DOCUMENT TYPE: Journal
LANGUAGE: English

AB This study was undertaken to test the hypothesis that there are several common factors associated with both normal and aberrant cartilage calcification, and to exam. the nature of the minerals and the matrices on which they are deposited by these common pathways. Hydroxyapatite crystal deposition occurs physiol. in cartilage as a prelude to bone formation via endochondral ossification. Both extracellular mols. and organelles, and the chondrocytes themselves control the initial formation of hydroxyapatite, as well as the growth and orientation of the hydroxyapatite crystals. Pathol. containing deposits from 48 patients (27 hydroxyapatite and 21 calcium pyrophosphate dihydrate) were subjected to crystallog., histol., and chemical analyses and compared with normal controls. It is suggested that both hydroxyapatite and Ca pyrophosphate dihydrate deposition involve elevations in ionic concns., exposure of mineral nucleators, and removal of mineral inhibitors. Peculiar to the matrices of pathol. deposits of hydroxyapatite are elevated concns. of Ca acidic phospholipid phosphate complexes and lower concns. of hexosamine, while collagen (hydroxyproline) and total lipid contents are not altered. Matrices of deposits of Ca pyrophosphate dihydrate were similar biochem. except that calcium acidic phospholipid phosphate complexes concns. were not elevated.

L11 ANSWER 1 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1978:613124 CAPLUS
DOCUMENT NUMBER: 89:213124
TITLE: Calcium phospholipid phosphate complexes in endochondral calcification: growth plate zones and fracture callus
AUTHOR(S): Boskey, A. L.; Lackman, R. H.; Cordella, D. M.; Lane, J. M.; Posner, A. S.
CORPORATE SOURCE: Hosp. Spec. Surg., Cornell Univ. Med. Coll., New York, NY, USA
SOURCE: Transactions of the Annual Meeting - Orthopaedic Research Society (1978), 3, 106
CODEN: TMOSDE; ISSN: 0149-6433
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The relation of the concentration of Ca-phospholipid-PO4 complexes to the stages of mineralization of growth plate and healing fracture callus were studied. In the growth plate, the greatest fractions of complexed lipids and total lipid P occurred in the calcified zones. The greatest portion of complexed vs. noncomplexed phospholipids occurred in the zone of provisional calcification. In healing fracture callus, the percent of total lipid which was complexed lipid was highest during the first wks of healing and then decreased. The decrease in complexed lipid correlated with the change from Type II (cartilage) to Type I (bone) collagen. Thus, the concentration of the Ca-phospholipid-PO4 complex was associated with the onset of mineral formation in growth plate and healing fracture callus.

L11 ANSWER 2 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:2638 CAPLUS
DOCUMENT NUMBER: 140:65271
TITLE: Complexed-acidic-phospholipid-collagen composites for bone induction
INVENTOR(S): Boskey, Adele; Tudor, Helen
PATENT ASSIGNEE(S): New York Society for the Ruptured and Crippled Maintaining the Hospital for Special Surgery, USA
SOURCE: PCT Int. Appl., 28 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2004000232	A2	20031231	WO 2003-US19943		20030624
WO 2004000232	A3	20041007			
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
AU 2003256300	A1	20040106	AU 2003-256300		20030624
US 2004076663	A1	20040422	US 2003-603478		20030624
PRIORITY APPLN. INFO.:			US 2002-391257P	P	20020624
			WO 2003-US19943	W	20030624

AB The present invention provides a composition for osteoinduction, which comprises a complexed-acidic-phospholipid complex

containing calcium, phospholipid, and inorg.
phosphate combined with collagen in a composite form.
The composition is effective to promote new bone formation upon introduction of
the composition into various osseous defects. An acidic phospholipid
complex is formed from dioleoylphosphatidylserine in a buffer
solution, ammonium acid phosphate, and CaCl2 and this
complex was evaluated for its ability to bind to collagen
.

L11 ANSWER 3 OF 48 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1994:530335 CAPLUS
DOCUMENT NUMBER: 121:130335
TITLE: Roles of the nucleational core complex and collagens (types II and X) in calcification of growth plate cartilage matrix vesicles
AUTHOR(S): Kirsch, Thorsten; Ishikawa, Yoshinori; Mwale, Fackson; Wuthier, Roy E.
CORPORATE SOURCE: Dep. Chem. and Biochem., Univ. South Carolina, Columbia, SC, 29208, USA
SOURCE: Journal of Biological Chemistry (1994), 269(31), 20103-9
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Matrix vesicles (MV) were shown to initiate mineralization in cartilage and other vertebrate tissues. However, the factors that drive this process remain to be fully elucidated. Recent studies have shown that a preformed nucleational core consisting mainly of a Ca2+-phosphatidylserine-Pi complex, is necessary for the accumulation of Ca2+ by MV. In addition, the collagens attached to the MV surface were shown to play an important role in stimulating Ca2+ uptake. In this study, the authors extend this knowledge by showing that both the nucleational core and the collagens (types II and X) are co-requirements for rapid influx of Ca2+ into intact MV. MV to which collagen fragments were attached were released from hypertrophic chicken cartilage by trypsin and collagenase digestion (trypsin/collagenase-released MV (TCRMV)), while collage-free MV were released by hyaluronidase and collagenase digestion (hyaluronidase/collagenase-released MV (HCRMV)). In contrast to TCRMV, which showed active uptake of Ca2+, HCRMV showed only little uptake. However, binding of native type II collagen to HCRMV stimulated uptake of Ca2+. Sucrose gradients separated TCRMV and HCRMV into three different d. fractions: a low-d. top fraction (SI), an intermediate-d. middle fraction (SII), and a high-d. pellet fraction (SIII). The SIII fractions of TCRMV and HCRMV contained significantly higher levels of mineral ions than did the SI and SII fractions. Only the SIII fraction of TCRMV which contained a stable nucleational core and surface-attached collagens, showed active Ca2+ uptake; all other sucrose fractions of TCRMV and HCRMV showed little or no uptake. Detergent treatment to purposely rupture the membrane greatly enhanced Ca2+ uptake by the SIII fraction of HCRMV, presumably by exposing the internal nucleational core. Addition of either native type II or type X collagen to the intact SIII fraction of HCRMV stimulated Ca2+ uptake to a level similar to that of the SIII fraction of TCRMV; however, incubation of the SI and SIII fractions of either TCRMV or HCRMV with type II or X collagen did not activate Ca2+ uptake. These findings indicate that both a functional nucleational core and surface-attached collagens need to be present to support active mineralization of MV.

L20 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:823153 CAPLUS
DOCUMENT NUMBER: 143:210893
TITLE: Compositions and methods for timed release of water-soluble nutritional supplements
INVENTOR(S): Romero, Jaime
PATENT ASSIGNEE(S): Colombia
SOURCE: U.S. Pat. Appl. Publ., 19 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005181047	A1	20050818	US 2004-782245	20040218
US 2005181048	A1	20050818	US 2004-910787	20040803
US 2005181044	A1	20050818	US 2004-930560	20041209
WO 2005079764	A1	20050901	WO 2005-US4890	20050216

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-782245 A2 20040218
US 2004-910787 A2 20040803

AB The present invention relates to compns. of and methods for producing timed or retarded release formulations that contain glucosamine sulfate, beta-(1,4)-2-amino-2-deoxy-D-glucose, and chondroitin, (C14H19NO14SNa2)n; N-acetylchondrosanine (2-acetamide-2-deoxy-D-galactopyranose) and D-guluronic acid copolymer and/or their dietary and nutraceutically acceptable salts of the same and/or hydrates of the active substance that provide a timed release formulation of the active substance.

L20 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:325523 CAPLUS
DOCUMENT NUMBER: 142:372895
TITLE: Low-sugar and low-flour food composition and its manufacture
INVENTOR(S): Slilaty, George E.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 7 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005079247	A1	20050414	US 2003-683378	20031014

PRIORITY APPLN. INFO.: US 2003-683378 20031014

AB A food composition includes a base that is not primarily of flour and sugar, and a supplement (e.g., vitamins, minerals, amino acids, etc.). Thus, the base may include plant and grain proteins, fiber, carbohydrates, etc. Other base components may include milk (or milk proteins) and egg or egg

derivs. The composition is functional as a substitute for traditional flour-and-sugar food products to mimic the organeoleptic properties of such traditional food products to thus provide the consumer with a product that is both tasty and pleasant in smell while simultaneously affording the consumer with a properly nutritious product to meet needed dietary requirements for a healthy lifestyle. Examples include muffins, doughnuts, pastas, pancakes and waffles. A method of making this food composition is also provided.

L20 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2005:983 CAPLUS
DOCUMENT NUMBER: 142:79607
TITLE: Compositions and methods for skin rejuvenation and repair
INVENTOR(S): Jain, Deepak
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 18 pp., Cont.-in-part of U.S. Ser. No. 222,949.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2004265268	A1	20041230	US 2004-821427		20040409
US 2003068297	A1	20030410	US 2002-222949		20020816
PRIORITY APPLN. INFO.:			US 2001-313306P	P	20010818
			US 2001-313307P	P	20010818
			US 2001-313313P	P	20010818
			US 2001-313314P	P	20010818
			US 2002-222949	A2	20020816
			US 2001-313306	A2	20010818
			US 2001-313307	A2	20010818
			US 2001-313313	A2	20010818
			US 2001-313314	A2	20010818

AB The present invention provides compns. for the repair of mammalian skin. The compns. contain cell growth enhancers to increase the growth rate of skin cells, stimulators of cell growth enhancers, nutrients to support log phase growth of skin cells, cell protectors to protect growing cells and enhanced cellular activity, antioxidants to protect rejuvenated cells, extracellular matrix proteins, stimulators of extracellular matrix proteins, and penetration enhancers. The compns. of the present invention are effective for repairing and rejuvenating mammalian skin, such that aging skin treated with the compns. has a significant reduction in the number of fine lines and wrinkles in the skin. The compns. are also effective for promoting the healing of skin that has suffered a wound, such as a sunburn or abrasion, and for promoting the growth of hair on the scalp.

L20 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1989:91607 CAPLUS
DOCUMENT NUMBER: 110:91607
TITLE: Hydroxyapatite formation in a dynamic collagen gel system: effects of type I collagen, lipids, and proteoglycans
AUTHOR(S): Boskey, Adele L.
CORPORATE SOURCE: Lab. Ultrastruct. Biochem., Hosp. Spec. Surg., New York, NY, 10021, USA
SOURCE: Journal of Physical Chemistry (1989), 93(4), 1628-33
CODEN: JPCHAX; ISSN: 0022-3654
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Hydroxyapatite formation was monitored in a denatured collagen gel system through which Ca and phosphate solns. circulated at a constant rate from an infinite reservoir. With the use of 10% gelatin gels, 2-6 mL in volume, the diffusion coeffs. for Ca and phosphate were 6.0 + 10-6 and 3.9 + 10-6 cm2/s, resp. In the absence of any other macromols., hydroxyapatite formation was detectable in the 3-mL gels at a point 1.54 mL (3.08 cm) from the end through which the Ca solution was being circulated after 5.5 days. At this time point, the observed Ca and phosphate content adjacent to the central precipitant band was 37 mM2. The presence of hydroxyapatite was verified by x-ray diffraction, electron microscopy, and chemical analyses. Inclusion of 0.1 mL of lathyritic type I collagen fibers (1 mg/mL) or synthetic complexed acidic phospholipids (0.3-1.2 mg/mL) at the site where mineralization occurred in control gels decreased the time required for the formation of the first observable mineral deposit. The lipids increased the amount of mineral formed relative to the control gels at day 5. Inclusion of 0.1 mL of 4-10 mg/mL articular cartilage proteoglycan aggregate or monomer prepns. prevented mineral deposition during the 5-day period. Hydroxyapatite seeds (0.5-5 mg/mL) included in the 0.1-mL central band proliferated, showing highly reproducible, detectable increases in mineral content at 2-6 days. The advantages of this unique dynamic gel system for the study of hydroxyapatite formation and(or) proliferation in the presence of other macromols. include reproducibility and the need for the only small amts. of macromols.

=>

National Library of Medicine - Medical Subject Headings

2007 MeSH

Return to Entry Page

Please select a term from list:

Annexin A6
- Calcium and Phospholipid-Binding Protein p68

Antiphospholipid Syndrome
- Anti-Phospholipid Antibody Syndrome
- Anti-Phospholipid Syndrome
- Antiphospholipid Antibody Syndrome

Glycosylphosphatidylinositols
- Glycoinositol Phospholipid Membrane Anchor

Phosphatidyl-N-Methylethanolamine N-Methyltransferase
- Phospholipid Methyltransferase

Phosphatidylethanolamine N-Methyltransferase
- Phospholipid Methyltransferase II

Phosphatidylinositols
- Inositide Phospholipids
- Inositol Phospholipids

Phospholipid Ethers
- Ether Phospholipids

Phospholipid Transfer Proteins
- Aminophospholipid Flippase
- Aminophospholipid Transfer Proteins
- Aminophospholipid Translocase
- Aminophospholipid Translocator
- Aminophospholipid Transporter
- Nonspecific Phospholipid Transfer proteins
- Phospholipid Exchange Protein
- Phospholipid Exchange Proteins
- Phospholipid Scramblase
- Phospholipid Transfer Protein
- Phospholipid Translocating Protein

Phospholipids

Plasmalogens
- Alkenyl Ether Phospholipids

Protein Kinase C
- Calcium Phospholipid-Dependent Protein Kinase
- Calcium-Activated Phospholipid-Dependent Kinase
- Phospholipid-Sensitive Calcium-Dependent Protein Kinase

3'-azido-3'-deoxy-5'-(1-hexadecylthio-2-methoxypropyl)phosphothymidine
- CP-102, thioether-phospholipid-AZT conjugate
- thioether-phospholipid-AZT conjugate, CP102

acyl CoA-phospholipid acyltransferase
- acyl coenzyme A-phospholipid acyltransferase

acyl-(acyl-carrier-protein)-phospholipid acyltransferase

ATP10A protein, human

potential phospholipid-transporting ATPase, human
bis(4'-n-octanoxyazobenzene-4-carboxyl)phosphatidylcholine
CDPC-phospholipid
CAM1 protein, S cerevisiae
calcim phospholipid binding protein, S cerevisiae
Clara cell-specific protein
Clara cell phospholipid-binding protein, human
essential 303 forte
cholinephospholipids
essential phospholipids
phosphatidylinositol dimannoside
PIM phospholipid
phospholipid acyltransferases
phospholipid desaturase
phospholipid diacylglycerol acyltransferase
phospholipid hydroperoxide cysteine peroxidase
phospholipid prodrug 7196
phospholipid serine base exchange enzyme
phospholipid-choline exchange enzyme
serine phospholipid exchange enzyme
phospholipid transfer protein II, human
phospholipid transfer protein II
phospholipid transfer protein, mouse
phospholipid-hydroperoxide glutathione peroxidase
phospholipid-specific inositol polyphosphate 5-phosphatase
PIAK protein, C elegans
phospholipid-independent AKT/PKB kinase, C elegans
PLSCR1 protein, human
phospholipid scramblase 1 protein, human
phospholipid scramblase 1, human
Plscr1 protein, mouse
phospholipid scramblase 1 protein, mouse
PLSCR2 protein, human
phospholipid scramblase 2, human
Plscr2 protein, mouse
phospholipid scramblase 2, mouse
PLSCR3 protein, human
phospholipid scramblase 3, human
Plscr3 protein, mouse
phospholipid scramblase 3, mouse
PLSCR4 protein, human
phospholipid scramblase 4, human
Plscr4 protein, mouse
phospholipid scramblase 4, mouse
PLTP protein, human
phospholipid transfer protein, human

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